

**DECLARATION, POWER OF ATTORNEY, AND PETITION**

To The Commissioner of Patents and Trademarks:

I, Paul F. Meier, declare:

that I am a citizen of the United States of America residing at 1100 Cherokee, Bartlesville, Oklahoma 74003 and having a post office address of 1100 Cherokee, Bartlesville, Oklahoma 74003;

that I have reviewed and understand the contents of application Serial No. 10/120,623, filed April 11, 2002, including the specification and claims and I verily believe I, Edward L. Sughrue, Jan W. Wells, Douglas W. Hausler, Max W. Thompson and Amos A. Avidan are the original, first, and joint inventors or discoverers of the invention or discovery in **DESULFURIZATION SYSTEM WITH ENHANCED FLUID/SOLIDS CONTACTING** described and claimed therein and for which a patent is sought;

I acknowledge my duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37 Code of Federal Regulations § 1.56;

and I hereby appoint Jeffrey R. Anderson, Registration No. 42,263; Ryan N. Cross, Registration No. 33,861; Beverly M. Dollar, Registration No. 32,870; John M. Fish, Jr., Registration No. 25,863; Gary L. Haag, Registration No. 35,529; Lynda S. Jolly, Registration No. 32,736; and Allen W. Richmond, Registration No. 28,662; who comprise the firm of **Richmond, Hitchcock, Fish & Dollar, P. O. Box 2443, Bartlesville, Oklahoma, 74005**, Registration No. 20,286; and Archie W. Umphlett, Registration No. 25,935, each attorney a member of the Bar of the State of Oklahoma or the District of Columbia; my representatives with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Wherefore I pray that Letters Patent be granted to Phillips Petroleum Company, a corporation organized and existing under the laws of the State of Delaware and domiciled and having an office at Bartlesville, Oklahoma, as assignee, for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, declaration, power of attorney and this petition.

Correspondence Address:

c/o **RICHMOND, HITCHCOCK,  
FISH & DOLLAR  
P.O. Box 2443  
Bartlesville, Oklahoma 74005**

Inventor

*Paul F. Meier*

Paul F. Meier

Date

*5/1/02*

**DECLARATION, POWER OF ATTORNEY, AND PETITION**

To The Commissioner of Patents and Trademarks:

I, Edward L. Sughrue, declare:

that I am a citizen of the United States of America residing at 6468 Clear Creek Loop, Bartlesville, Oklahoma 74006 and having a post office address of 6468 Clear Creek Loop, Bartlesville, Oklahoma 74006;

that I have reviewed and understand the contents of application Serial No. 10/120,623, filed April 11, 2002, including the specification and claims and I verily believe I, Paul F. Meier, Jan W. Wells, Douglas W. Hausler, Max W. Thompson and Amos A. Avidan are the original, first, and joint inventors or discoverers of the invention or discovery in **DESULFURIZATION SYSTEM WITH ENHANCED FLUID/SOLIDS CONTACTING** described and claimed therein and for which a patent is sought;

I acknowledge my duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37 Code of Federal Regulations § 1.56;

and I hereby appoint Jeffrey R. Anderson, Registration No. 42,263; Ryan N. Cross, Registration No. 33,861; Beverly M. Dollar, Registration No. 32,870; John M. Fish, Jr., Registration No. 25,863; Gary L. Haag, Registration No. 35,529; Lynda S. Jolly, Registration No. 32,736; and Allen W. Richmond, Registration No. 28,662; who comprise the firm of **Richmond, Hitchcock, Fish & Dollar, P. O. Box 2443, Bartlesville, Oklahoma, 74005**, Registration No. 20,286; and Archie W. Umphlett, Registration No. 25,935, each attorney a member of the Bar of the State of Oklahoma or the District of Columbia; my representatives with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

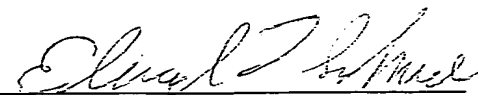
I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Wherefore I pray that Letters Patent be granted to Phillips Petroleum Company, a corporation organized and existing under the laws of the State of Delaware and domiciled and having an office at Bartlesville, Oklahoma, as assignee, for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, declaration, power of attorney and this petition.


Correspondence Address:

c/o **RICHMOND, HITCHCOCK,  
FISH & DOLLAR  
P.O. Box 2443  
Bartlesville, Oklahoma 74005**

Inventor

  
Edward L. Sughrue

Date

  
May 1, 2002

**DECLARATION, POWER OF ATTORNEY, AND PETITION**

To The Commissioner of Patents and Trademarks:

I, Jan W. Wells, declare:

that I am a citizen of the United States of America residing at Route 2, Box 240, Bartlesville, Oklahoma 74006 and having a post office address of Route 2, Box 240, Bartlesville, Oklahoma 74006;

that I have reviewed and understand the contents of application Serial No. 10/120,623, filed April 11, 2002, including the specification and claims and I verily believe I, Paul F. Meier, Edward L. Sughrue, Douglas W. Hausler, Max W. Thompson and Amos A. Avidan are the original, first, and joint inventors or discoverers of the invention or discovery in **DESULFURIZATION SYSTEM WITH ENHANCED FLUID/SOLIDS CONTACTING** described and claimed therein and for which a patent is sought;

I acknowledge my duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37 Code of Federal Regulations § 1.56;

and I hereby appoint Jeffrey R. Anderson, Registration No. 42,263; Ryan N. Cross, Registration No. 33,861; Beverly M. Dollar, Registration No. 32,870; John M. Fish, Jr., Registration No. 25,863; Gary L. Haag, Registration No. 35,529; Lynda S. Jolly, Registration No. 32,736; and Allen W. Richmond, Registration No. 28,662; who comprise the firm of **Richmond, Hitchcock, Fish & Dollar, P. O. Box 2443, Bartlesville, Oklahoma, 74005**, Registration No. 20,286; and Archie W. Umphlett, Registration No. 25,935, each attorney a member of the Bar of the State of Oklahoma or the District of Columbia; my representatives with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

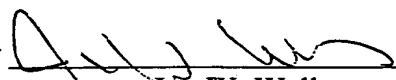
I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Wherefore I pray that Letters Patent be granted to Phillips Petroleum Company, a corporation organized and existing under the laws of the State of Delaware and domiciled and having an office at Bartlesville, Oklahoma, as assignee, for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, declaration, power of attorney and this petition.

Correspondence Address:

c/o **RICHMOND, HITCHCOCK,  
FISH & DOLLAR  
P.O. Box 2443  
Bartlesville, Oklahoma 74005**

Inventor

  
Jan W. Wells

Date

MAY 4, 2002

**DECLARATION, POWER OF ATTORNEY, AND PETITION**

To The Commissioner of Patents and Trademarks:

I, Douglas W. Hausler, declare:

that I am a citizen of the United States of America residing at 201 Carlyle, Bartlesville, Oklahoma 74003 and having a post office address of 201 Carlyle, Bartlesville, Oklahoma 74003;

that I have reviewed and understand the contents of application Serial No. 10/120,623, filed April 11, 2002, including the specification and claims and I verily believe I, Paul F. Meier, Edward L. Sughrue, Jan W. Wells, Max W. Thompson and Amos A. Avidan are the original, first, and joint inventors or discoverers of the invention or discovery in **DESULFURIZATION SYSTEM WITH ENHANCED FLUID/SOLIDS CONTACTING** described and claimed therein and for which a patent is sought;

I acknowledge my duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37 Code of Federal Regulations § 1.56;

and I hereby appoint Jeffrey R. Anderson, Registration No. 42,263; Ryan N. Cross, Registration No. 33,861; Beverly M. Dollar, Registration No. 32,870; John M. Fish, Jr., Registration No. 25,863; Gary L. Haag, Registration No. 35,529; Lynda S. Jolly, Registration No. 32,736; and Allen W. Richmond, Registration No. 28,662; who comprise the firm of **Richmond, Hitchcock, Fish & Dollar, P. O. Box 2443, Bartlesville, Oklahoma, 74005**, Registration No. 20,286; and Archie W. Umphlett, Registration No. 25,935, each attorney a member of the Bar of the State of Oklahoma or the District of Columbia; my representatives with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

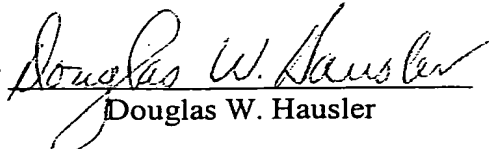
I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Wherefore I pray that Letters Patent be granted to Phillips Petroleum Company, a corporation organized and existing under the laws of the State of Delaware and domiciled and having an office at Bartlesville, Oklahoma, as assignee, for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, declaration, power of attorney and this petition.

Correspondence Address:

c/o **RICHMOND, HITCHCOCK,  
FISH & DOLLAR  
P.O. Box 2443  
Bartlesville, Oklahoma 74005**

Inventor

  
Douglas W. Hausler

Date

May 1, 2002

**DECLARATION, POWER OF ATTORNEY, AND PETITION**

To The Commissioner of Patents and Trademarks:

I, Max W. Thompson, declare:

that I am a citizen of the United States of America residing at 7935 Chianti Court, Sugar Land, Texas 77479 and having a post office address of 7935 Chianti Court, Sugar Land, Texas 77479;

that I have reviewed and understand the contents of application Serial No. 10/120,623, filed April 11, 2002, including the specification and claims and I verily believe I, Paul F. Meier, Edward L. Sughrue, Jan W. Wells, Douglas W. Hausler and Amos A. Avidan are the original, first, and joint inventors or discoverers of the invention or discovery in **DESULFURIZATION SYSTEM WITH ENHANCED FLUID/SOLIDS CONTACTING** described and claimed therein and for which a patent is sought;

I acknowledge my duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37 Code of Federal Regulations § 1.56;

and I hereby appoint Jeffrey R. Anderson, Registration No. 42,263; Ryan N. Cross, Registration No. 33,861; Beverly M. Dollar, Registration No. 32,870; John M. Fish, Jr., Registration No. 25,863; Gary L. Haag, Registration No. 35,529; Lynda S. Jolly, Registration No. 32,736; and Allen W. Richmond, Registration No. 28,662; who comprise the firm of **Richmond, Hitchcock, Fish & Dollar, P. O. Box 2443, Bartlesville, Oklahoma, 74005**, Registration No. 20,286; and Archie W. Umphlett, Registration No. 25,935, each attorney a member of the Bar of the State of Oklahoma or the District of Columbia; my representatives with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

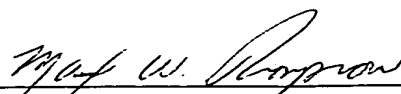
I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Wherefore I pray that Letters Patent be granted to Phillips Petroleum Company, a corporation organized and existing under the laws of the State of Delaware and domiciled and having an office at Bartlesville, Oklahoma, as assignee, for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, declaration, power of attorney and this petition.

Correspondence Address:

c/o **RICHMOND, HITCHCOCK,  
FISH & DOLLAR  
P.O. Box 2443  
Bartlesville, Oklahoma 74005**

Inventor

  
Max W. Thompson

Date

5/13/02

**DECLARATION, POWER OF ATTORNEY, AND PETITION**

To The Commissioner of Patents and Trademarks:

I, Amos A. Avidan, declare:

that I am a citizen of the United States of America residing at 3435 Westheimer, Apt.1212, Houston, Texas 77027 and having a post office address of 3435 Westheimer, Apt.1212, Houston, Texas 77027;

that I have reviewed and understand the contents of application Serial No. 10/120,623, filed April 11, 2002, including the specification and claims and I verily believe I, Paul F. Meier, Edward L. Sughrue, Jan W. Wells, Douglas W. Hausler and Max W. Thompson are the original, first, and joint inventors or discoverers of the invention or discovery in **DESULFURIZATION SYSTEM WITH ENHANCED FLUID/SOLIDS CONTACTING** described and claimed therein and for which a patent is sought;

I acknowledge my duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37 Code of Federal Regulations § 1.56;

and I hereby appoint Jeffrey R. Anderson, Registration No. 42,263; Ryan N. Cross, Registration No. 33,861; Beverly M. Dollar, Registration No. 32,870; John M. Fish, Jr., Registration No. 25,863; Gary L. Haag, Registration No. 35,529; Lynda S. Jolly, Registration No. 32,736; and Allen W. Richmond, Registration No. 28,662; who comprise the firm of **Richmond, Hitchcock, Fish & Dollar, P. O. Box 2443, Bartlesville, Oklahoma, 74005**, Registration No. 20,286; and Archie W. Umphlett, Registration No. 25,935, each attorney a member of the Bar of the State of Oklahoma or the District of Columbia; my representatives with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Wherefore I pray that Letters Patent be granted to Phillips Petroleum Company, a corporation organized and existing under the laws of the State of Delaware and domiciled and having an office at Bartlesville, Oklahoma, as assignee, for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, declaration, power of attorney and this petition.

Correspondence Address:

c/o **RICHMOND, HITCHCOCK,  
FISH & DOLLAR  
P.O. Box 2443  
Bartlesville, Oklahoma 74005**

Inventor

Amos A. Avidan  
Amos A. Avidan

Date

May 20, 2002